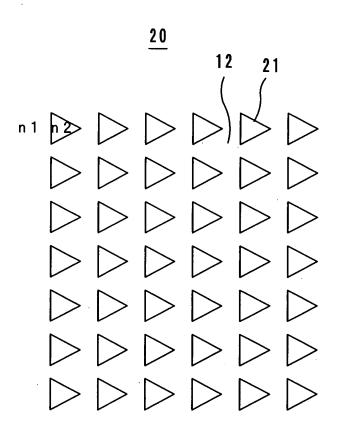
APPLN. FILING DATE: SEPTEMBER 23, 2005
TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL
SURFACE-EMITTING LASER
INVENTOR(S): SUSUMU NODA ET AL.
APPLN. NO.: SHEET 1 OF 22

**SHEET 1 OF 22** 

10/550596

F / G. 1

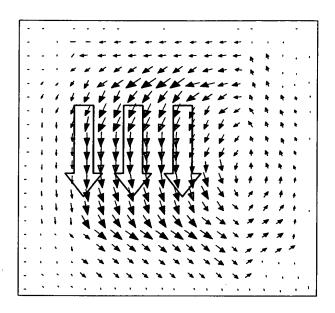


APPLN. FILING DATE: SEPTEMBER 23, 2005
TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL
SURFACE-EMITTING LASER
INVENTOR(S): SUSUMU NODA ET AL.
APPLN. NO.: SHEET 2 OF 22

**SHEET 2 OF 22** 

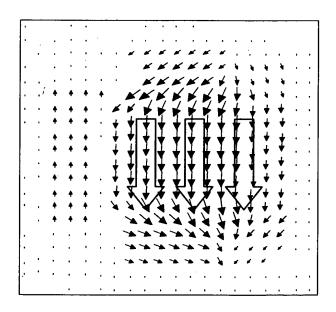
F / G. 2

MODE



F / G. 3

MODE II"

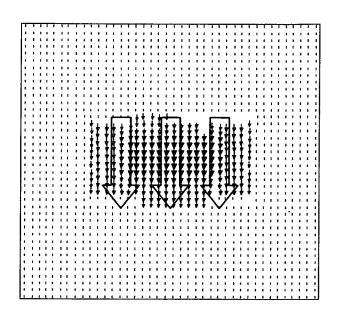


APPLN. FILING DATE: SEPTEMBER 23, 2005
TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL
SURFACE-EMITTING LASER
INVENTOR(S): SUSUMU NODA ET AL.
APPLN. NO.: SHEET 3 OF 22

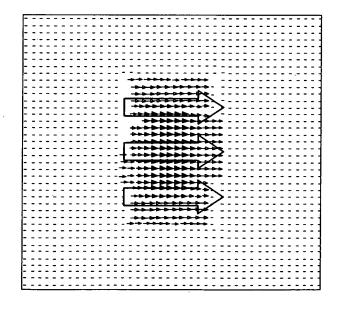
**SHEET 3 OF 22** 

F / G. 4

MODE II"



F / G. 5 MODE IV"



APPLN. FILING DATE: SEPTEMBER 23, 2005
TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL
SURFACE-EMITTING LASER
INVENTOR(S): SUSUMU NODA ET AL.
APPLN. NO.: SHEET 4 OF 22 10/550596

**SHEET 4 OF 22** 

O Q

APPLN. FILING DATE: SEPTEMBER 23, 2005
TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL
SURFACE-EMITTING LASER
INVENTOR(S): SUSUMU NODA ET AL.
APPLN. NO.:
SHEET 5 OF 22

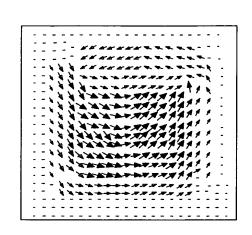
**SHEET 5 OF 22** 

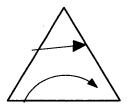
MODE B

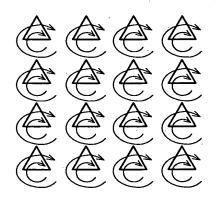
APPLN. FILING DATE: SEPTEMBER 23, 2005
TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL
SURFACE-EMITTING LASER
INVENTOR(S): SUSUMU NODA ET AL.
APPLN. NO.: SHEET 6 OF 22

SHEET 6 OF 22

10/550596





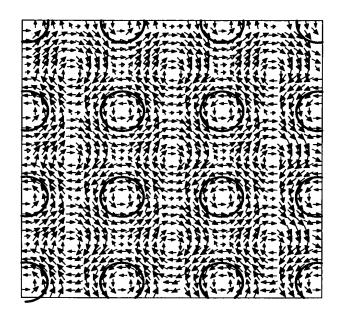


APPLN. FILING DATE: SEPTEMBER 23, 2005
TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL
SURFACE-EMITTING LASER
INVENTOR(S): SUSUMU NODA ET AL.
APPLN. NO.: SHEET 7 OF 22

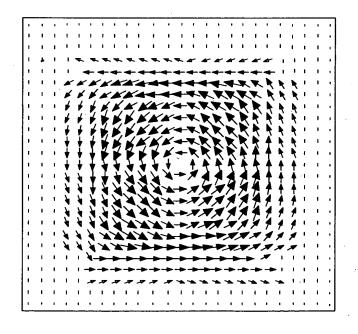
**SHEET 7 OF 22** 

10/550596

F / G. 9 a



F / G. 9 b

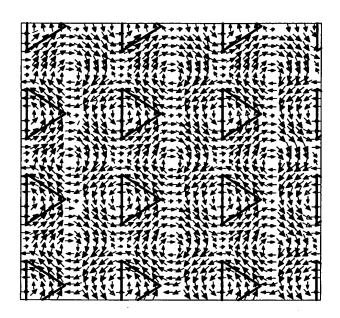


APPLN. FILING DATE: SEPTEMBER 23, 2005
TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL
SURFACE-EMITTING LASER
INVENTOR(S): SUSUMU NODA ET AL.
APPLN. NO.:
SHEET 8 OF 22

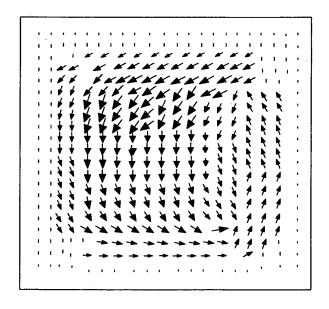
**SHEET 8 OF 22** 

10/550596

F / G. 10 a

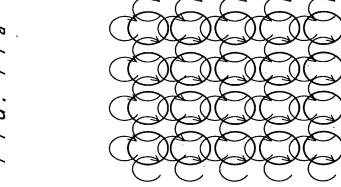


F / G. 10b



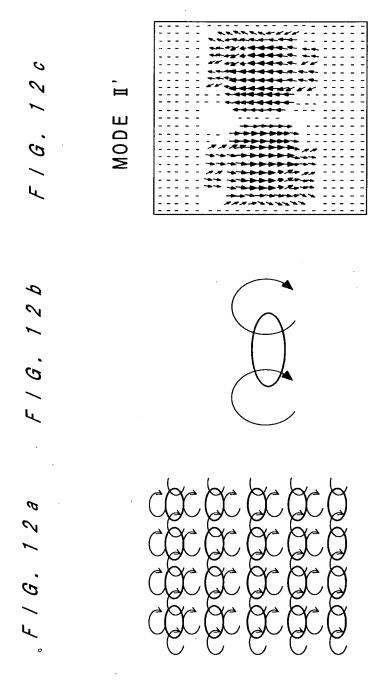
APPLN. FILING DATE: SEPTEMBER 23, 2005
TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL
SURFACE-EMITTING LASER
INVENTOR(S): SUSUMU NODA ET AL.
APPLN. NO.:
SHEET 9 OF 22

**SHEET 9 OF 22** 



APPLN. FILING DATE: SEPTEMBER 23, 2005
TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL
SURFACE-EMITTING LASER
INVENTOR(s): SUSUMU NODA ET AL.
APPLN. NO.:
SHEET 10 OF 2

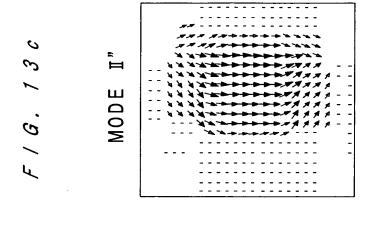
**SHEET 10 OF 22** 

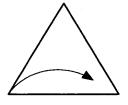


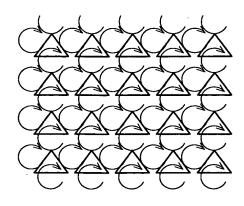
10/550596

APPLN. FILING DATE: SEPTEMBER 23, 2005
TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL
SURFACE-EMITTING LASER
INVENTOR(S): SUSUMU NODA ET AL.
APPLN. NO.: SHEET 11 OF 2

**SHEET 11 OF 22** 





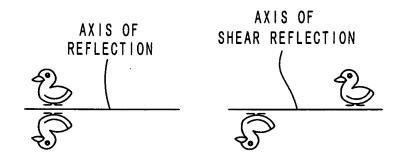


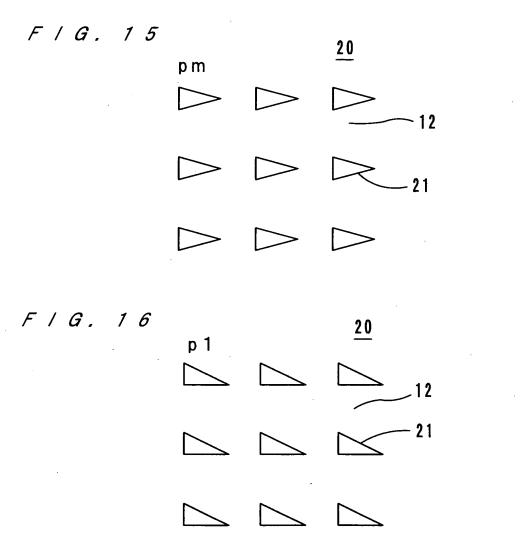
**SHEET 12 OF 22** 

10/550596

F / G. 14 a

F / G. 14b

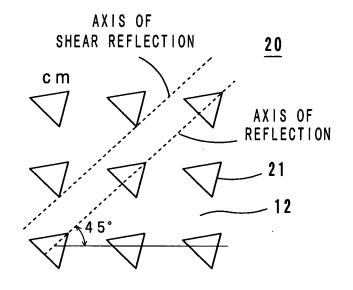




APPLN. FILING DATE: SEPTEMBER 23, 2005
TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL
SURFACE-EMITTING LASER
INVENTOR(s): SUSUMU NODA ET AL.

**SHEET 13 OF 22** 

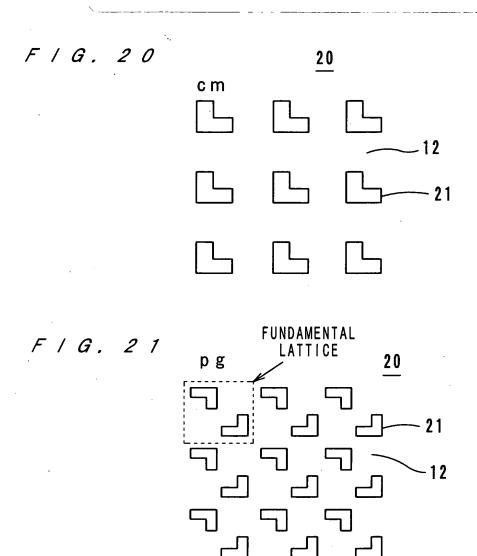
F. / G. 17



F/G. 18 20 p m **-12** 

F/G. 19 20 -12 APPLN. FILING DATE: SEPTEMBER 23, 2005
TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL
SURFACE-EMITTING LASER
INVENTOR(S): SUSUMU NODA ET AL.
APPLN. NO.: SHEET 14 OF 2

**SHEET 14 OF 22** 

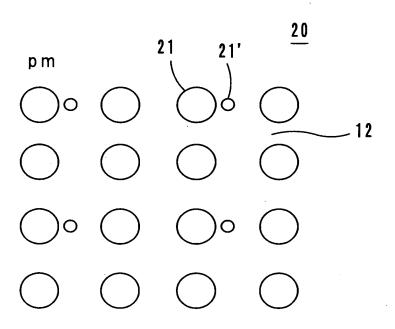


$$F/G.$$
 22 pm  $\underline{20}$   $\underline{21}$   $\underline{21}$ '  $\underline{0}$   $\underline{0}$ 

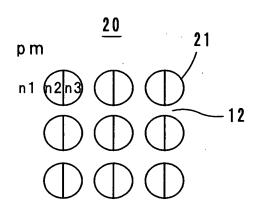
APPLN. FILING DATE: SEPTEMBER 23, 2005 TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL SURFACE-EMITTING LASER INVENTOR(S): SUSUMU NODA ET AL. APPLN. No.:

**SHEET 15 OF 22** 

F/G. 23



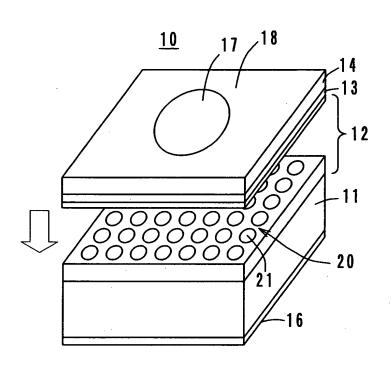
F/G. 24



APPLN. FILING DATE: SEPTEMBER 23, 2005
TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL SURFACE-EMITTING LASER
INVENTOR(S): SUSUMU NODA ET AL.
APPLN. NO.: SHEET 16 OF 2

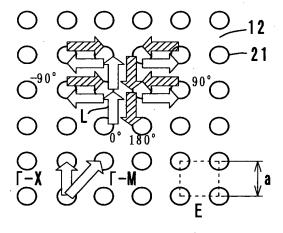
F/G. 25

SHEET 16 OF 22



F / G. 26

<u>20</u>

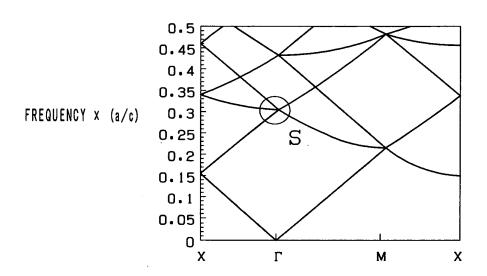


APPLN. FILING DATE: SEPTEMBER 23, 2005
TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL SURFACE-EMITTING LASER INVENTOR(S): SUSUMU NODA ET AL.

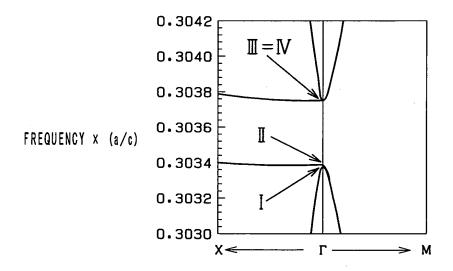
Appln. Nò.:

**SHEET 17 OF 22** 

## F/G. 27



F/G.28



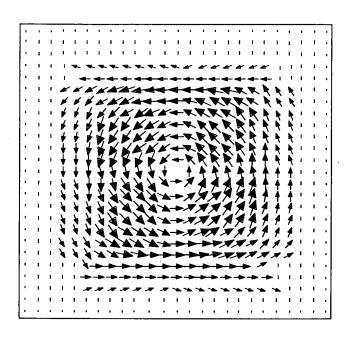
APPLN. FILING DATE: SEPTEMBER 23, 2005
TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL
SURFACE-EMITTING LASER
INVENTOR(S): SUSUMU NODA ET AL.
APPLN. NO.: SHEET 18 OF 2

**SHEET 18 OF 22** 

10/550596

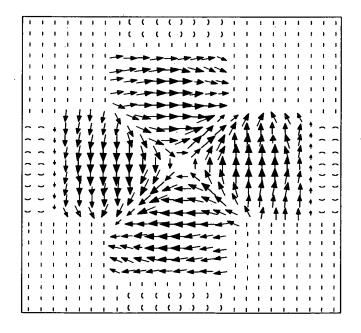
F / G. 29

MODE I



F / G. 30

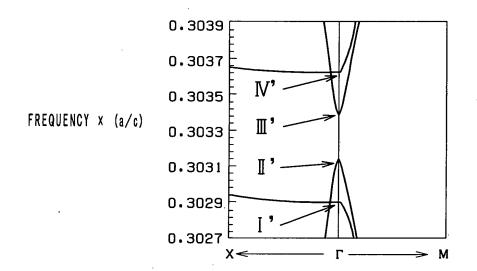
MODE I



APPLN. FILING DATE: SEPTEMBER 23, 2005
TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL
SURFACE-EMITTING LASER
INVENTOR(S): SUSUMU NODA ET AL.
APPLN. NO.: SHEET 19 OF 2

**SHEET 19 OF 22** 

F/G. 31

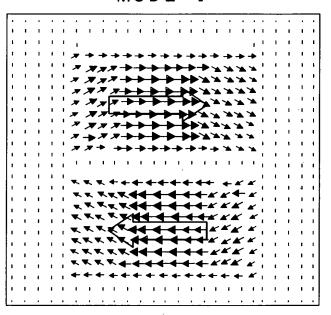


APPLN. FILING DATE: SEPTEMBER 23, 2005
TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL
SURFACE-EMITTING LASER
INVENTOR(S): SUSUMU NODA ET AL.
APPLN. No.: SHEET 20 OF 2

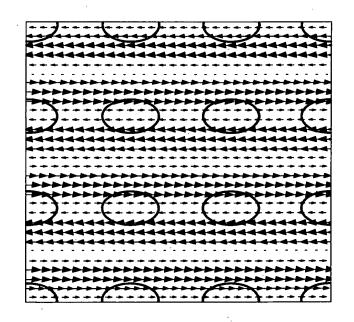
**SHEET 20 OF 22** 

F / G. 32 a

MODE I'



F / G. 32b

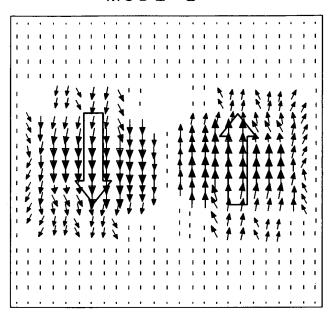


**SHEET 21 OF 22** 

10/550596

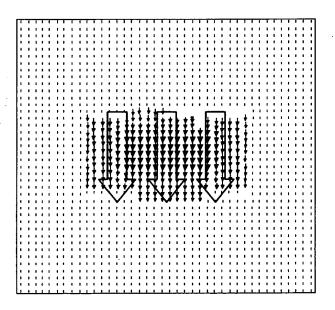
F / G. 33

MODE Ⅱ'



F/G. 34

MODE Ⅲ'

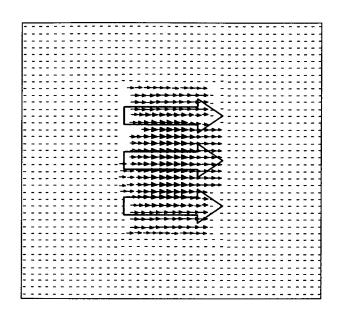


APPLN. FILING DATE: SEPTEMBER 23, 2005
TITLE: TWO-DIMENSIONAL PHOTONIC CRYSTAL
SURFACE-EMITTING LASER
Inventor(s): SUSUMU NODA ET AL.
APPLN. NO.: SHEET 22 OF 2

**SHEET 22 OF 22** 

F / G. 35 a

MODE IV'



F / G. 35b

